Goal attainment expectancy and goal commitment: relationships with age, gender and solution-focused scaling.

ABDULLA, A.

2023

Goal Attainment Expectancy and Goal Commitment: Relationships with Age, Gender and Solution-Focused Scaling

Abstract

Two of the most important variables in coaching and goal attainment are (goal attainment) expectancy and (goal) commitment. The present study examined how these variables relate to age, gender and solution-focused scaling. 130 participants – randomly assigned to a binary or scaling condition – were asked to identify an aspect of their lives with which they were dissatisfied. In the binary condition, participants indicated whether they were succeeding in the area that they had identified. In the scaling condition, participants rated the amount of success that they were having on a scale. Dependent variables were expectancy and commitment. Results indicated that age was negatively associated with expectancy (especially amongst males), whilst expectancy was positively associated with commitment. Scaling apparently did not enhance expectancy or commitment but scaling scores did *predict* expectancy. Amongst participants under the age of 30, females had lower expectancy than males. Results have important implications for coaching psychologists. Coaches would do well to consider clients' age and gender when working on expectancy. In addition, if clients can be led to consider *current* performance as (at least partially) successful then they may be more likely to expect further success.

Goal Attainment Expectancy and Goal Commitment

The primary aim of coaching is arguably to facilitate goal attainment (e.g. Passmore et al., 2016). Coaches who wish to facilitate goal attainment need to understand and attend to *goal attainment expectancy* and *goal commitment.* Goal attainment expectancy may be defined as the extent to which individuals expect to attain their goals. Goal commitment may be defined as the extent to which individuals are *committed* to attaining their goals. One of the primary determinants of goal commitment is in fact goal attainment expectancy (e.g. Klein et al., 2013). Goal attainment expectancy (hereafter just "expectancy") and goal commitment (hereafter just "commitment") are crucial variables in coaching for many reasons. If individuals are to attain challenging goals, then they need to be committed to attaining them (e.g. Latham, 2016). In order to be committed to their goals, individuals must have at least some expectation of attaining them. Expectancy is important in coaching not only because of its effect on commitment, but also because of its impact on mental health. Research indicates, for example, that expectancy is positively associated with wellbeing (e.g. Gamble et al., 2020).

Expectancy, Age and Gender

There are some reasons for thinking that expectancy declines with age. Several gerontological studies have found that older individuals have lower scores on expectancy-like variables than younger individuals. For example, Durbin et al. (2019) found that older adults were less optimistic about their futures in 15 years than younger adults. Bühler et al. (2019) found that age was negatively associated with the perceived attainability of work, status and personal-growth goals. Perceived (goal) attainability is akin to goal attainment expectancy (e.g. Abdulla & Woods,

2021a). If older individuals do have lower expectations of attaining their goals, coaches should be (made) aware of this fact.

It is also important to know whether expectancy differs across genders. Some evidence suggests that females are less optimistic than males, at least in certain domains. For example, Bjuggren and Elert (2019) found that women were less optimistic about their economic futures than males. Massey et al. (2009) found that adolescent females had lower perceived "self-efficacy to achieve their goals" than adolescent males. However it is not clear from research whether males and females differ in (trait) hope (Rand & Touza, 2021). It would be extremely useful for coaches to know whether females are likely to have lower expectations of attaining their goals than males.

Solution-Focused Scaling

Solution-focused approaches (both in coaching and in therapy) often highlight expectancy (e.g. Reiter, 2010). The most widely used technique in solution-focused (SF) practice may be (solution-focused) scaling (Berg & Szabó, 2005; Thomas, 2013). A client who is struggling in a particular domain could be asked a binary question (e.g. "Are you succeeding? Or not?"), a problem-focused question (e.g. "What is holding you back?"), or a scaling question (e.g. "On a scale from 0 to 10, how much success are you having in this area?"). Many advocates of SF approaches claim that scaling enhances expectancy (Beumer-Peeters, 2021; Blundo & Simon, 2016; Reiter, 2010). Authors also claim that scaling enhances commitment (Reiss, 2007).

Experimental examinations of SF coaching interventions may include scaling as a component. However, SF coaching interventions typically involve the use of many other techniques (e.g. Grant et al. 2010). Even those studies focusing specifically on *questions* tend to combine numerous types of questions in one condition (e.g. Martenstyn & Grant, 2021). This makes it difficult to evaluate scaling specifically. As O'Connell (2003, p.5) points out, "solution-focused helpers believe in *minimal intervention*" (italics added). It is therefore important to examine the effects of a single (type of) question before assuming that more questions are required. Two studies that did focus solely on scaling questions suggested that they have little effect on expectancy and commitment, at least among female secondary school students (Abdulla & Woods, 2021b; 2021c). A third study (involving predominantly female students) found that scaling questions may be no more effective than problem-focused questions in enhancing perceived self-efficacy (Neipp et al., 2021). The aforementioned studies involved school or university students. It is important to investigate the effects of scaling in a broader population of potential clients. In addition, some commentators have suggested that solution-focused approaches may be more effective with males than females (e.g. Westwood & Black, 2012).

Solution-Focused Scaling, Current (Perceived) Success and the "Performance Heuristic"

The studies conducted by Abdulla and Woods (2021b; 2021c) examined what the authors called "historical success scaling." Participants were asked to reflect on their performance histories and to identify the highest level of success that they had achieved. SF scaling may also focus on the present. For example, individuals may be asked to rate their *current* level of success on a scale. If SF scaling focusing on

current success does not raise expectancy, it may still be useful in coaching. In fact, the numbers that individuals give when answering a scaling question about the present may provide a clue as to their expectations of success in the *future*. Research suggests that individuals rely on a "performance heuristic" (Critcher & Rosenzweig, 2014; Abdulla & Woods, 2021c). That is, individuals infer their chances of further success from their current level of (perceived) success. The more successful they consider current performance the more likely they consider further improvement. If individuals are asked to rate their current level of success on a scale from 0 to 10, those choosing a relatively high number (e.g. 5 out of 10) may therefore also be those who have higher expectations of further success. Conversely, those providing a *low* number may also be those who do *not* expect to have much more success. In one sense, this might seem illogical. Individuals who perceive current performance to be unsuccessful should perhaps realise that there is plenty of room for improvement. In contrast, individuals who consider current performance to be successful might perhaps come to the conclusion that they have "maxed out." And yet, as noted, research suggests that individuals do not reason in this way. Instead, they apparently rely on the "performance heuristic": the more successful their current (perceived) performance, the greater their expectations of further success. It should be noted, however, that previous research on the "performance heuristic" has involved students only (Critcher & Rosenzweig, 2014; Abdulla & Woods, 2021c). It is therefore not clear whether adults in general rely on this heuristic.

The Present Study

The purpose of the present study was to shed more light on the ways in which age, gender, scaling, expectancy and commitment are related. The principle of

“minimal intervention” was respected insofar as only a single question was used in the scaling condition (see the procedure below for details). The main hypotheses are outlined below. Some were advanced more tentatively than others.

H1: Expectancy has a positive effect on commitment.

Of all the study’s hypotheses, H1 was considered to be on the firmest ground. A great deal of research suggests that goal attainment expectancy and goal commitment are positively related (Klein et al., 2013). It should be noted that individuals cannot be randomly assigned to different levels of expectancy. Some may therefore question whether expectancy has an *effect* on commitment rather than, for example, the reverse. However, Senko and Hulleman (2013) found that direct and indirect relationships between variables supported the hypothesis that expectancy is a cause of commitment.

H2: Expectancy declines with age.

As explained above, several studies suggest that older adults are less optimistic and have lower expectations of success than younger adults, at least in some domains (e.g. Bühler et al. 2019; Durbin et al. 2019; Giltay et al. 2006). H2 was based on such studies.

The remaining hypotheses were more tentative. Indeed, most should perhaps be considered as “research questions” rather than (firm) “hypotheses”:

H3a: Compared to a binary evaluation of current performance (i.e. “I am succeeding” or “I am *not* succeeding”) solution-focused scaling has a positive effect on expectancy.

Previous research with students (most of whom were female) has provided little evidence to support H3a (e.g. Abdulla & Woods, 2021b). However, results may be different with adults, especially perhaps with males.

H3b: Any positive effect of solution-focused scaling on expectancy is greater amongst males than females

Like H3a, H3b was a tentative “hypothesis” based primarily on the speculations of authors writing about (SF) therapy (e.g. Liddon et al., 2019; Robertson et al., 2015; Westwood & Black, 2012).

H4a: Compared to a binary evaluation of current performance, solution-focused scaling has a positive indirect effect on commitment via (enhanced) expectancy.

H4a effectively follows from H1 and H3a: if scaling positively affects expectancy (H3a) and expectancy enhances commitment (H1), then scaling may have a positive indirect effect on commitment via (enhanced) expectancy.

H4b: Any positive indirect effect of scaling on commitment (via expectancy) is larger amongst males than females

Like the H3b, H4b was a tentative hypothesis based on speculation in the literature on therapy (rather than any experimental evidence).

Finally, the "performance heuristic" was taken into account in the following hypothesis:

H5: When people are rating their *current* level of success on a scale from 0 to 10, the higher their scores the higher their expectations of further success.

Methods

Participants

165 individuals were initially recruited through "Call For Participants" – an online recruitment platform. Individuals were invited to sign up for the study if they were (i) fluent in English, (ii) over 18 years of age, and (iii) able to identify one area of life that was "not going as well as [they] would like." Participants were randomly assigned to a binary condition (*n* = 83) or a solution-focused scaling condition (*n* =82). 65 participants in the binary condition completed the intervention (78%). 65 participants in the solution-focused scaling condition also completed the intervention (79%). Completion rates were therefore almost identical in the two conditions. Of those who completed the intervention, approximately 60% reported their nationality as British (78 participants) and approximately 8% reported their nationality as American. The remaining 32% reported various nationalities including German, Egyptian, Chinese, Italian and Kenyan. Approximately 66% of participants reported their gender as female (86 participants); approximately 30% reported their gender as male (39

participants); approximately 4% of participants reported their gender as “other” (5 participants). Ages ranged from 18 to 67 (M = 29.96; SD = 9.2).

Procedure

Participants received a link to one of two surveys. Both surveys began by asking participants to provide demographic information. After this, participants were asked to identify one area or aspect of life that was “not going as well as [they] would like.” They were asked to describe this area/aspect in a few sentences. The next question differed across conditions. In the binary condition, participants were asked to choose one of the following statements: “I am succeeding in this area of my life” or “I am *not* succeeding in this area of my life.” In the scaling condition, participants were asked to imagine a “success scale” from 0 to 10. They were told that “0” represents “absolutely *zero* success” and “10” represents “*total* success.” They were then asked: “On a scale from 0 to 10, how much success are you having in the area you identified”? Following the binary/scaling prompt, all participants were asked to complete the measures of (goal attainment) expectancy and (goal) commitment. The “goal” was “to have more success” in the area that they had identified.

Measures

Expectancy

Expectancy was measured by means of a 4-item instrument used in other research on solution-focused questions (e.g. Abdulla & Woods, 2022). Scores are provided on a scale from 0 to 10. Higher scores indicate higher expectancy. The first item was: “How likely is it that you will have more success in the area you’ve identified (if you try)?” Estimated reliability in the present study was high (α = .89)

Commitment

Commitment was measured by means of the 4-item instrument developed by Klein and colleagues (Klein et al., 2014). Scores were provided on a scale from 1 to 7. Higher scores indicate higher commitment. The first item was: “How committed are you to having more success in the area you identified?” Estimated reliability in the present study was high (α = .91)

Results

Participants identified a wide range of areas with which they were dissatisfied, including difficulties in relationships, challenges at work, and problems with health and finances. Descriptive statistics for the two conditions are presented in Table 1.

Table 1

Descriptive Statistics for the Binary and Scaling Conditions

	Binary		Scaling	
	M	SD	M	SD
Expectancy	5.11	1.62	5.18	1.79
Commitment	5.25	1.26	5.13	1.23

Hayes' PROCESS macro (Model 7) was used for the data analyses. Two regressions were conducted and then integrated. In the first regression, expectancy was regressed on a dummy-variable coding condition (0= binary; 1=scaling), a dummy variable coding gender (0= female; 1=male), the product of the two dummy variables (i.e. a condition x gender interaction term), and age. The key results from this regression are reported under the heading immediately below.

The Effects of Age, Condition and Gender on Expectancy

The coefficient estimating the interaction between condition and gender was not statistically significant (b = -.81 [-2.06,.43], t =1.29, p = .20). There was therefore no compelling evidence to suggest that the effect of scaling on expectancy (relative to the binary condition) depends on gender. H3b (viz. that any positive effect of scaling on expectancy is greater amongst males than females) was therefore not supported. Age was negatively associated with expectancy (b = -.05 [-.08,-.02], t =3.09, p = .0025). H2 was therefore supported.

The Effects of Expectancy and Condition on Commitment

In the second regression, commitment was regressed on the dummy variable coding condition, expectancy, and age. The direct effect of scaling on commitment (controlling for expectancy and age) was estimated to be slightly negative but was far from statistical significance (b = -.16 [-.59,.27], t =.72, p = .47). The estimated effect of expectancy on commitment was positive (b = .23[.09,.36], t =3.41, p = .0009). H1 (viz. that expectancy has a positive effect on commitment) was therefore supported.

The index of moderated mediation (estimating the extent to which the indirect effect of scaling on commitment through expectancy differs between males and females) was associated with a confidence interval that included zero b = -.18 [-.57, .13]. There was therefore no good evidence to support H4b (viz. that any positive indirect effect of scaling on commitment via expectancy is larger amongst males than females).

The product variable capturing the "interaction" between gender and condition was therefore dropped. A simple mediation model was estimated with commitment as the dependent variable, condition (scaling vs binary) as the independent variable and expectancy as the mediator. Age and gender were included as covariates. The estimated effect of the scaling condition (vs. binary condition) on expectancy was positive but was not statistically significant (b = .21 [-.37,.79], t =.70, p = .48). There was therefore limited evidence to support H3a (viz. that solution-focused scaling has a positive effect on scaling relative to a binary question). With condition and age controlled, males were estimated to have higher expectancy than females and the effect was almost statistically significant (b = .59 [-.04,.1.22], t =.1.85, p = .067)

The indirect effect of scaling on commitment via (enhanced) expectancy was estimated to be positive but was extremely small and was associated with a 95% bootstrapped confidence interval that included zero (b = .05 [-.09, .19]). There was therefore little to suggest that scaling has a (meaningful) positive indirect effect on commitment via expectancy. H4a was therefore not supported.

The Relationship Between Scaling Scores and Expectancy

According to H5, when people are rating their current level of success on a scale from 0 to 10, the higher the scores that they provide, the higher their

expectations of further success in the future. In order to test this hypothesis, expectancy was regressed on scaling scores in the solution-focused scaling condition. The association between scaling scores and expectancy was positive, moderately large and statistically significant (b = .48 [.30,.67], t =5.23, p <.001). The standardised beta coefficient (which equals the correlation between scaling scores and expectancy) was .55 - a considerable association. H5 was therefore clearly supported.

Additional Exploratory Analysis

According to H2, expectancy declines with age. This hypothesis was supported. However, it seemed possible that the effect of age on expectancy might differ across genders. An additional analysis was therefore conducted in which the interaction between age and gender (in predicting expectancy) was estimated. The coefficient for the interaction was statistically significant (b = -.07[-.14, -.01], t =2.12. p =.03). The estimated effect of age on expectancy was negative amongst females (b = -.03[-.06, .01], t =1.33, p =.18) but was estimated to be even more negative amongst males (b = -.10[-.15, -0.5], t =3.63, p =.0004). When gender was made the focal predictor and age the moderator, the Johnson-Neyman technique indicated that males were estimated to have higher expectancy than females amongst participants under the age of 30.47. Almost 62% of participants were under this age.

Discussion

The present study yielded several results of great importance for coaching. First, as expected, goal attainment expectancy was positively associated with goal commitment. As expectancy increased by 1 point (on the 0 to 10 scale), commitment

increased by almost ¼ of a point (on the 1 to 7 scale). The implication for coaching should be clear - if coaches wish to understand or enhance their clients' goal commitment, they would do well to consider expectancy.

As predicted, age was negatively associated with expectancy. An additional exploratory analysis suggested that this negative relationship may be even stronger in males than females. Amongst males, as age increased by 1 year, expectancy was estimated to decrease by one-tenth of a point. Thus, the estimated difference in expectancy between a 30-year old male and a 50-year old male is two full points - a very large difference indeed. Additionally, amongst participants under the age of 30, expectancy was estimated to be lower in females than in males. These results have implications for coaching. It appears that the older individuals are, the lower their expectations of making improvements in problematic areas of their lives. It may also be the case that amongst younger individuals, females have lower goal attainment expectancy than males. Coaches working with older individuals (or perhaps younger females) may have to spend more time on enhancing expectancy.

The effect of the single scaling question (vs. the binary condition) on expectancy was estimated to be positive but fairly small (¼ of a point on the 0-10 scale) and was not statistically significant. Coaches should therefore not expect to enhance expectancy (much) by asking a single scaling question. Moreover, the effect of scaling on expectancy does not appear to depend on gender. At present, there is in fact little experimental evidence to suggest that solution-focused questions are more effective with males than females (or vice versa).

As noted, a single scaling question may do little to enhance a person's expectancy or commitment. However, scaling scores about the present appear to *predict* expectancy. That is, when people are rating current success on a scale from

0 to 10, the higher their scores the higher their expectations of further success. This too has important implications for coaching. If individuals can be led to consider current performance as (more) successful, they may become more hopeful about their chances of improvement. It is important to note, however, that perceiving current performance as (relatively) successful may have both positive and negative effects on commitment (Abdulla & Woods, 2021c).

The current study of course has limitations. No attempt was made to categorise the *types* of problems that participants identified. However, it seems likely that expectancy depends on domain. The effect of age (and gender) on expectancy may also depend on domain. Bühler et al. (2019) found that age had a negative "effect" on the perceived attainability of work, status and personal-growth goals but a *positive* effect on what they called "prosocial-engagement goals." Future studies might therefore examine effects of age and gender on goal attainment expectancy in particular domains. Nevertheless, the results of the present study should encourage coaching psychologists to think more deeply about expectancy and commitment. An understanding of how these variables relate to each other (and how they relate to age, gender and scaling) may help coaches to facilitate goal attainment more effectively.

References

Abdulla, A., & Woods, R. (2021a). Obstacles vs. Resources - Comparing the Effects of a Problem-Focused, Solution-Focused and Combined Approach on Perceived Goal Attainability and Commitment. *International Journal of Applied Positive Psychology, 6*, 175–194.

Abdulla, A., & Woods, R. (2021b). The Effect of Solution-Focused Scaling and Solution-Focused Questions on Expectancy and Commitment. *School Psychology Review*. Advance Online Publication DOI: 10.1080/2372966X.2021.1942196

Abdulla, A., & Woods, R. (2021c). The effects of current unsatisfactory performance and evaluative approach on improvement expectancy and commitment to improvement. *Motivation and Emotion.* Advance online publication. https://doi.org/10.1007/s11031-021-09864-8

Abdulla, A., & Woods, R. (2022). “How Else Could You Do that?” The effects of generating multiple means of goal attainment on female students’ perceived goal attainability. *Contemporary Educational Psychology, 70*.

Berg, I. K., & Szabó, P. (2005). *Brief coaching for lasting solutions*. W W Norton & Co. Abstract

Beumer-Peeters, C. (2021). *Solution Focused Coaching for Adolescents.* Routledge.

Bjuggren, C. M., & Elert, N. (2019). Gender differences in optimism. *Applied Economics, 51*, 5160–5173.

Blundo, R. G., & Simon, J. (2016). *Solution-focused case management*. Springer Publishing Co.

Bühler, J. L., Weidmann, R., Nikitin, J., & Grob, A. (2019). A closer look at life goals across adulthood: Applying a developmental perspective to content, dynamics, and outcomes of goal importance and goal attainability. *European Journal of Personality, 33*(3), 359–384

Critcher, C. R., & Rosenzweig, E. L. (2014). The performance heuristic: A misguided reliance on past success when predicting prospects for improvement. *Journal of Experimental Psychology: General, 143*(2), 480–485

Durbin, K. A., Barber, S. J., Brown, M., & Mather, M. (2019). Optimism for the future in younger and older adults. *The Journals of Gerontology: Series B: Psychological Sciences and Social Sciences, 74*(4), 565–574.

Gamble, B., Tippett, L. J., Moreau, D., & Addis, D. R. (2020). The futures we want: How goal-directed imagination relates to mental health. [PDF file]. Retrieved from: https://bc8c6d88-a2e4-417e-a6cc-72d924b295cf.filesusr.com/ugd/aaa34a_1ea4acc76c30481eb366a961c778783f.pdf

Giltay E. J., Kamphuis M. H., Kalmijn S., Zitman F. G., Kromhout D. (2006). Dispositional optimism and the risk of cardiovascular death: The Zutphen Elderly Study.*Archives of Internal Medicine, 166*, 431–436.

Grant, A. M., Green, L. S., & Rynsaardt, J. (2010). Developmental coaching for high school teachers: Executive coaching goes to school. *Consulting Psychology Journal: Practice and Research, 62,* 151–168.

Klein, H. J., Cooper, J. T., & Monahan, C. A. (2013). Goal commitment. In E. A. Locke & G. P. Latham (Eds.), *New developments in goal setting and task performance* (pp. 65–89). Routledge.

Klein, H. J., Cooper, J. T., Molloy, J. C., & Swanson, J. A. (2014). The assessment of commitment: Advantages of a unidimensional, target-free approach. *Journal of Applied Psychology, 99*, 222–238.

Latham,G. P. (2016). *Goal-Setting Theory: Causal Relationships, Mediators, and Moderators*. Oxford Research Encyclopedia of Psychology. Published online May 2016

Liddon, L., Kingerlee, R., Seager, M. & Barry, J.A. (2019). What are the factors that make a male-friendly therapy? in J.A. Barry, M.J. Seager & L. Sullivan (Eds.), *The Palgrave Handbook of Male Psychology and Mental Health* (pp.671-694). Palgrave Macmillan.

Massey, E.K, Gebhardt, W.A.. & Garnefski, N. (2009). Self-generated goals and goal process appraisals: Relationships with sociodemographic factors and well-being. *Journal of Adolescence,* 32, 501-518.

Martenstyn, J. A., & Grant, A. M. (2021). An online, comparative effectiveness trial of mental contrasting with implementation intentions (MCII) versus solution-focused coaching (SFC) questions. *Coaching: An International Journal of Theory, Research and Practice*, 15, 60-84.

Neipp, M.C., Beyebach, M., Sánchez-Prada, A., & Delgado, C. (2021). Solution-focused versus Problem-focused questions: Differential effects of miracles, exceptions, and scales. *Journal of Family Therap*y, *43, 728-747*

O'Connell. B. (2003). Introduction to the solution-focused approach. In B. O'Connell & S. Palmer (Eds.) *Handbook of solution-focused therapy* (pp.1–11). London: Sage

Passmore, J., Peterson, D.B. and Freire, T. (Eds.) (2016). *The Wiley-Blackwell Handbook of the Psychology of Coaching and Mentoring*. Wiley

Rand, K.L., & Touza, K.K. (2021). Hope theory. In C.R. Snyder, S.J. Lopez, L.M. Edwards & S.C. Marques (Eds.), *The Oxford Handbook of Positive Psychology* (3rd ed., pp. 425-442). Oxford University Press

Reiss, K. J. (2007). *Leadership coaching for educators: Bringing out the best in school administrators*. Corwin Press.

Reiter, M. D. (2010). Hope and Expectancy in Solution-Focused Brief Therapy. *Journal of Family. Psychotherapy, 21*, 132-14

Robertson, S., White, A., Gough, B, Robinson, R., Seims, A., Raine, G., & Hanna, E. (2015). Promoting mental health and wellbeing with men and boys: What works? In *Leeds: Centre for men's health*. Leeds Beckett University. Retrieved from: https://eprints.leedsbeckett.ac.uk/id/eprint/1508/1/Promoting_MentalHealth__Wellbeing_FINAL.pdf.

Senko, C., & Hulleman, C. S. (2013). The role of goal attainment expectancies in achievement goal pursuit. *Journal of Educational Psychology, 105*(2), 504–521

Thomas, F. N. (2013). *Solution-focused supervision: A resource-oriented approach to developing clinical expertise.* Springer Science + Business Media.

Westwood, M. J., & Black, T. G. (2012). Introduction to the Special Issue of the Canadian Journal of Counseling and Psychotherapy [Editorial]. *Canadian Journal of Counseling and Psychotherapy, 46*, 285–291.